

Patent Abstracts of Japan

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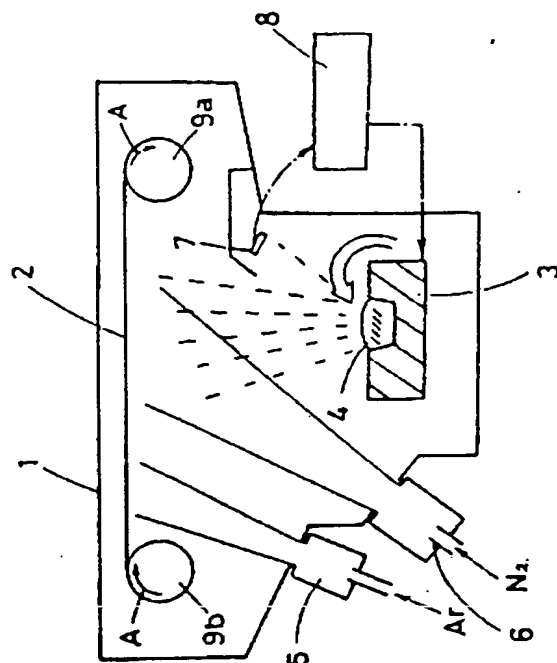
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TITLE : METHOD AND DEVICE FOR FORMING
 THIN FILM



ABSTRACT : **PURPOSE:** To efficiently form a thin film having high denseness by subjecting the surface of a base material to ionic bombardment with activating ion beams, scattering evaporated particles toward the base material and simultaneously irradiating the surface of the base material with reactive ion beams.

CONSTITUTION: Metallic Ti 4 is put on an electron beam evaporating source 3, a vacuum vessel 1 is evacuated and a base material 2 is wound off at a constant rate. The surface of the base material 2 is successively irradiated with Ar^+ ion beams from an ion gun 5 and N ion beams from an ion gun 6. Evaporated metallic Ti is converted into TiN and a thin TiN film having superior adhesion, denseness and wear resistance is continuously formed on the surface of the base material 2 with ion beam energy.

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